Claims:

1. An isolated nucleic acid molecule selected from the group comprising:

   a) a nucleic acid molecule comprising a nucleotide sequence according to SEQ ID No. 1,

   b) a nucleic acid molecule comprising a nucleotide sequence having sufficient homology to be functionally analogous to a nucleotide sequence according to a),

   c) a nucleic acid molecule which, as a consequence of the genetic code, is degenerated into a nucleotide sequence according to a) or b), and

   d) a nucleic acid molecule according to a nucleotide sequence of a) - c), which is modified and functionally analogous to a nucleotide sequence according to a) through c) as a result of deletions, additions, substitutions, translocations, inversions and/or insertions.

2. The nucleic acid molecule according to claim 1, characterized in that
   the nucleotide sequence specified under b) has at least 80%, preferably 90% homology to a nucleotide sequence as specified under a).

3. The nucleic acid molecule according to claim 1 or 2, characterized in that
   said molecule is a genomic DNA, a cDNA and/or an RNA.

4. A vector comprising a nucleic acid molecule according to any of claims 1 to 3.

5. A host cell comprising the vector according to claim 4.

6. A polypeptide encoded by a nucleic acid molecule according to any of claims 1 to 3.

7. A recognition molecule directed against a nucleic acid molecule according to any of claims 1 to 3, a vector according to claim 4, a host cell according to claim 5 and/or a polypeptide according to claim 6.

8. The recognition molecule according to claim 7, characterized in that said molecule is an antibody, an antibody fragment and/or an antisense construct, particularly an RNA interference molecule.

9. A pharmaceutical composition, characterized in that said composition comprises a nucleic acid molecule according to any of claims 1 to 3, a vector according to claim 4, a host cell according to claim 5, a polypeptide according to claim 6 and/or a recognition molecule according to any of claims 7 or 8, optionally together with a pharmaceutically tolerable carrier.

10. A kit, characterized in that said kit comprises a nucleic acid molecule according to any of claims 1 to 3, a vector according to claim 4, a host cell according to claim 5, a polypeptide according to claim 6, a recognition molecule according to any of claims 7 or 8, optionally together with a

pharmaceutically tolerable carrier, and/or the pharmaceutical composition according to claim 9.

11. A method for the detection of an AKAP-PKA interaction, comprising the steps of:

    a) providing (i) a first vector comprising a nucleic acid molecule according to any of claims 1 to 3 and a first marker, and (ii) a second vector comprising a second nucleic acid molecule which encodes a regulatory subunit of a protein kinase and a second marker,

    b) incorporating the first and second markers in a cell, thereby transfecting the cell, and

    c) performing a fluorescence resonance energy transfer (FRET) measurement, thereby detecting the AKAP-PKA interaction.

12. The method according to claim 11,
    characterized in that
    interaction between AKAP and RIIα, RIIβ, RIα and/or RIβ is detected.

13. The method according to any of claims 11 or 12,
    characterized in that
    an inhibitor of AKAP and/or a PKA is identified in such a way that the method is performed with and without addition of the inhibitor to be investigated, thereby providing an indication as to the inhibitor of AKAP and/or PKA.

14. The method according to any of claims 11 to 13,
    characterized in that

a membrane-permeable molecule is identified in such a way that a conjugate of the membrane-permeable molecule to be investigated and a membrane-permeable AKAP-PKA inhibitor is produced and AKAP-PKA interaction is detected with and without said conjugate or said molecule.

15. Use of a nucleic acid molecule according to any of claims 1 to 3, a vector according to claim 4, a host cell according to claim 5, a polypeptide according to claim 6, a recognition molecule according to claim 7 or 8, a pharmaceutical composition according to claim 9, a kit according to claim 10 and/or a method according to any of claims 11 to 14 for the detection of an AKAP-PKA interaction or of an inhibitor of AKAP and/or PKA and/or of a membrane-permeable peptide.